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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JAMES W. OGILVIE, KENNETH WARD, and LESA M. NELSON

Appeal 2016-001939 Application 14/170,691 Technology Center 3700

Before LINDA E. HORNER, LYNNE H. BROWNE, and ERIC C. JESCHKE, *Administrative Patent Judges*.

JESCHKE, Administrative Patent Judge.

DECISION ON APPEAL

STATEMENT OF THE CASE

James W. Ogilvie et al. (Appellants) seek review, under 35 U.S.C. § 134(a), of the Examiner's decision to reject claims 1–20. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

BACKGROUND

The disclosed subject matter "relates to the management of bone growth, and more especially management of bone growth to correct for skeletal deformities such as scoliosis through the selective use of biological implants." Spec. ¶ 2. Claims 1, 8, and 14 are independent. Claim 8 is reproduced below:

8. A method comprising applying at least one of a spine deformation therapeutic to a patient at increased risk of spine deformation based on at least one spine deformation associated biological marker determined to be present in said patient and a spine non-deformation therapeutic to a patient at decreased risk of spine deformation based on at least one spine non-deformation associated biological marker determined to be present in said patient.

EVIDENCE RELIED ON BY THE EXAMINER

Dixon US 2005/0015002 A1 Jan. 20, 2005
Inoue Masatoshi Inoue, M.D. et al., Association Apr. 23, 2002
Between Estrogen Receptor Gene
Polymorphisms and Curve Severity of
Idiopathic Scoliosis, SPINE, Vol. 27, No.
21, pp. 2357–62 (2002).

REJECTIONS ON APPEAL

- 1. Claims 8–19 are rejected under 35 U.S.C. § 102(b) as anticipated by Dixon.
- 2. Claims 1–7 and 20 are rejected under 35 U.S.C. § 103(a) as unpatentable over Dixon and Inoue.

DISCUSSION

Rejection 1 – The rejection of claims 8–19 under 35 U.S.C. § 102(b)

Independent claim 8 recites, *inter alia*, "[a] method comprising applying at least one of a spine deformation therapeutic to a patient at increased risk of spine deformation *based on at least one spine deformation associated biological marker determined to be present in said patient.*" Appeal Br. 10 (Claims App.) (emphasis added). Independent claim 14 recites "[a] method comprising applying at least one of a spine deformation therapeutic and a spine non-deformation therapeutic to a patient *based on at least one spine deformation altered risk associated biological marker determined to be present in said patient." Id.* at 11 (emphasis added).

In rejecting claims 8–19, the Examiner finds that "[t]he method [of Dixon] is based on at least one spine deformation altered risk associated biological marker of said patient." Final Act. 3 (dated Feb. 4, 2015) (citing Dixon ¶¶ 7, 9, 14, 16, 19).

Appellants contend that Dixon does not anticipate claims 8–19 because "Dixon's biochemical markers are not 'spine deformation altered risk associated biological markers." Appeal Br. 4. Appellants argue that the Examiner's finding above is "factually incorrect" because "[a]lthough Dixon's biochemical markers may be indicative of bone turnover or change in bone status, such bone turnover or change in bone status indication does not mean that Dixon's biochemical markers are associated with altered risk

¹ Although Appellants quote the claim language from claim 14, in light of the entirety of the Appeal Brief, we understand this argument to be directed at both independent claims 8 and 14.

of spine (or any bone) deformation." *Id.* at 3–4. According to Appellants, "Dixon's bone turnover markers are incapable of distinguishing between th[ose] who are at altered risk of spine deformation and those who are not at altered risk of spine deformation." Reply Br. 4.

In response, the Examiner states that Dixon "teaches that these biological markers are used to identify an individual at high risk for bone fracture and to increase the specificity of estimated bone loss of spine." Ans. 6 (citing Dixon ¶¶ 60, 78, 101).

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros., Inc. v. Union Oil Co. of Cal.*, 814 F.2d 628, 631 (Fed. Cir. 1987). For the reasons argued by Appellants (as set forth above), we agree that the record here does not support the Examiner's finding that Dixon discloses, either expressly or inherently, the limitations at issue. Even assuming that the record supports the findings above (Ans. 6), the Examiner has not sufficiently demonstrated, for example, how the identified "biological marker[s]" are "associated" with either "spine *deformation*" (claim 8) (emphasis added) or "spine *deformation* altered risk" (claim 14) (emphasis added).

For these reasons, we do not sustain the decision to reject claims 8 and 14, and also do not sustain the decision to reject claims 9–13 (which depend from claim 8) and claims 15–19 (which depend from claim 14).

Rejection 2 – The rejection of claims 1–7 and 20 under 35 U.S.C. § 103(a)

A. Independent Claim 1 (and Dependent Claims 2–7)

Independent claim 1 recites "[a] method comprising applying at least one of a spine deformation therapeutic and a spine non-deformation therapeutic to a patient based on at least one spine deformation altered risk associated biological marker determined to be present in the DNA of said patient." Appeal Br. 9 (Claims App.) (emphasis added). For claim 1 (and for claims 2–7, which depend from claim 1), the Examiner relies on the same deficient findings and conclusions with regard to Dixon as discussed above with regard to claims 8 and 14 (see supra Rejection 1). See Final Act. 2–4. Moreover, the Examiner does not rely on Inoue to remedy the deficiencies discussed above (see supra Rejection 1). See Final Act. 2–4. Thus, we do not sustain the decision to reject claims 1–7.

B. Dependent Claim 20

Claim 20 depends from claim 14. Appeal Br. 12 (Claims App.). The Examiner does not rely on Inoue to remedy the deficiencies in the teachings of Dixon, discussed above (*see supra* Rejection 1). Thus, we also do not sustain the decision to reject claim 20.

CONCLUSION

For the reasons set forth above, we REVERSE the decision to reject claims 8–19 under 35 U.S.C. § 102(b) and REVERSE the decision to reject claims 1–7 and 20 under 35 U.S.C. § 103(a).

REVERSED